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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/000,219
Filing Date: December 04, 2001
Appellant(s): NISHITANI ET AL.

MAILED
OCT 16 2007
GROUP 1700

Brian K. Shelton
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 2, 2007 appealing from the Office action mailed December 20, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,368,233	Chen	04-2002
6,739,984	Ciasullo	05-2004
6,106,412	Kosugi et al.	08-2000
6,339,869	Peterson	01-2002

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5,971,867	Galy	10-1999
5,423,535	Shaw et al.	06-1995

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1, 3-7, 10-12, 17-26, 33-40, and 43-45 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chen (6,368,233). Regarding claims 1, 4, 6-7, 10, 12, 17-26, and 33-36, Chen

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discloses a wood-type golf club head having a hollow head body comprising: a shaft (not shown but inherent feature of a golf club); and a striking face 62 including a plurality of metal pieces (main piece 62 of titanium and arcuate piece 64 of stainless steel); a crown member 30 including a plurality of pieces (main piece 32 titanium and annular piece 34 stainless steel). The recitation with respect to "laser welding, press forming, plastic working, and formed by applying post-machining" is directed to the method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113. With respect to claims 5 and 11, the recitation with respect to the melting temperature does not further add structural limitation to the claimed invention, and it appears the combination of the above applied references has a face component with melting temperature of the claimed invention being the fact that the face material of the applied references is made of the same material as the face component of the claimed invention. Regarding claims 37-40, the recitation with respect to "laser welding of plurality of metal pieces in the same plane and press forming to formed a curved surface portion of the striking face" is directed to method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process

claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113. With respect to claims 3 and 43-45, Chen appears to show the metal pieces have the same thicknesses. Furthermore, it would have an obvious matter of design choice to one having ordinary skill in the art to select the metal pieces having the same or different thicknesses since the court held that a change in size is within the level ordinary skill in the art. See *In re Rose*. See MPEP. 2100.04.

2. Claims 24-26, 40, and 46 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ciasullo (6,739,984). Ciasullo discloses a wood-type golf club head having a hollow head body comprising: a shaft (not shown but inherent feature of a golf club); a crown member 30 including a plurality of metal pieces (18, 22) are welded together to form a curved portion of the crown member (Col. 5, lines 15-24). The recitation with respect to "laser welding, press forming, forged, and rolled" is directed to the method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process
claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742,

744, 180 USPQ 324 (CCPA 1974). See MPEP 2113. With respect to claim 46, Ciasullo appears to show the metal pieces have the same thicknesses. Furthermore, it would have an obvious matter of design choice to one having ordinary skill in the art to select the metal pieces having the same thickness since the court held that a change in size is within the level ordinary skill in the art. See *In re Rose*. See MPEP. 2100.04.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-7, 9-12, 15-23, and 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosugi et al. (6,106,412) in view of Shaw et al. '535.

Regarding claims 1, 7, and 15-23, Kosugi et al. discloses a golf hollow golf club head (Fig. 1) comprising: a shaft (S) and a metal head (1) attached to the shaft, wherein the metal head comprises a body (22,23) having an opening in which a striking face member (21), wherein the face member (21) is press forming, forging, and plastic working (Col. 3, lines 25-30) from a rolled material to form a smooth, curved surface portion (Fig. 2) of the striking face member (21) and the body parts (21,22,23) are welded to form an integral unit (Col. 2, lines 60-64). Kosugi et al. fails to disclose the striking face member is made of a plurality of metal pieces are fixed together by laser

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welding. Shaw teaches a metal face plate (Col. 2, lines 13-20) can be made of one or more component(s) (Col. 1, lines 42-58 and Figs. 23-26), which are welded together (Col. 4, lines 23-29). Such multi-piece face component(s) provide a golf club with different properties such as weight distribution, friction, spin rates, flexural modulus, resilience, and hardness, and aesthetic appearance (Col. 2, lines 13-17, Col. 2, lines 39-43), Col. 3, lines 35-45). Thus, it would have been obvious in view of Shaw to one having ordinary skill in the art to modify the striking face member of Kosugi with a face member with a plurality of pieces as taught by Shaw to gain the above benefits. The recitation with respect to "laser welding, press forming, and plastic working" is directed to the method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113. Regarding claims 3, 9, and 43-44, Kosugi et al. fails to disclose the metal pieces of the face member may have different thicknesses. Shaw teaches the face-piece components may have a thickness variation in vertical and lateral planes and such geometric configuration facilitates proper weight distribution to the club head (Col. 2, lines 39-63). Thus, it would have been obvious in view of Shaw to one having ordinary skill in the art to modify the golf club head of Kosugi et al. with metal pieces have different thicknesses to provide proper weight distribution to the club

head. Furthermore, it would have an obvious matter of design choice to one having ordinary skill in the art to select the metal pieces having the same or different thicknesses since the court held that a change in size is within the level ordinary skill in the art. See *In re Rose*. See MPEP. 2100.04. Regarding claims 4 and 10, the combination of Kosugi et al. and Shaw discloses the face material component(s) of the claimed invention since Shaw teaches the face component(s) may be selected from a variety of materials in order to obtain certain properties such as weight distribution, hardness, and flexural modulus, and etc. (Col.. 2, lines 13-24); thus, it would have a *prima facie* obvious to one having ordinary skill in the art to select various materials for the face components to obtain certain desirable properties for the club head. Regarding claims 5 and 11, the recitation with respect to the melting temperature does not further add structural limitation to the claimed invention, and it appears the combination of the above applied references has a face component with melting temperature of the claimed invention being the fact that the face material of the applied references is made of the same material as the face component of the claimed invention. Regarding claims 6 and 12, Kosugi (Col. 3, lines 25-38) and Shaw disclose various metals (Col. 2, lines 13-20) can be selected to confer the characteristics particularly desired for the striking face.

4. Claims 27-29, 41, and 47 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Peterson (6,339,869). Peterson discloses a wood-type golf club head having a hollow head body (Fig. 1)

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comprising: a shaft (19); a side wall member including a plurality of casting pieces (side wall 30 and cap 36) and the pieces 30 and 36 can be fused or welded (Col. 6, lines 20-34) to form a curved surface portion of the side wall member (Fig. 1). The recitation with respect to "laser welding, press forming, and forged or rolled" is directed to the method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113. Regarding claim 41, the recitation with respect to "laser welding of plurality of metal pieces in the same plane and press forming to formed a curved surface portion of the striking face" is directed to method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113. With respect to claim 47, Peterson appears to show the metal pieces have the same thicknesses. Furthermore, it would have an obvious matter of design choice to one having ordinary skill in the art to select the metal pieces having the same thickness since the court held

that a change in size is within the level ordinary skill in the art. See *In re Rose*. See MPEP. 2100.04.

5. Claims 30-32, 42, and 48 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Galy (5,971,867). Galy discloses a wood-type golf club head having a hollow head body (Fig. 4) comprising: a shaft (inherent feature of golf club); a sole member (11) including a plurality of pieces (sole plate 11 and arc shape portion 32), which are welded together to form a curved surface portion of the sole member (Col. 4, lines 55-61). The recitation with respect to "laser welding, press forming, and forged or rolled" is directed to the method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113. Regarding claim 42, the recitation with respect to "laser welding of plurality of metal pieces in the same plane and press forming to formed a curved surface portion of the striking face" is directed to method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable

even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113. With respect to claim 48, Peterson appears to show the metal pieces have the same thicknesses. Furthermore, it would have an obvious matter of design choice to one having ordinary skill in the art to select the metal pieces having the same thickness since the court held that a change in size is within the level ordinary skill in the art. See *In re Rose*. See MPEP. 2100.04.

(10) Response to Argument

(1) Appellants argue on page 16 that "Chen teaches a striking face having a single piece formed of a single material (i.e., titanium), and, as evidenced by the formation of the grooves solely on the main piece 62, the arcuate piece is not a "striking face". Chen therefore fails to teach or suggest a striking face, as claimed, which includes a plurality of metal pieces. Chen's teaching of a single piece striking face member and separate "arcuate piece" would likewise not suggest any laser welding and press forming of a plurality of metal pieces, in the manner claimed." Examiner respectfully disagrees. Chen discloses "the front shell (60) is formed of a main piece 62 of titanium, and an arcuate piece (64) of stainless steel. Thus, the striking face 62 including a plurality of pieces (main piece 62 of titanium and arcuate piece 64 of stainless steel). Chen also further discloses the metal club parts can be press forming and welded together (Col. 2, lines 32-47 and Col. 1, lines 40-46). Note, the recitation with respect to "laser welding, press forming, plastic working, and formed by applying

post-machining" is directed to the method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113.

(2) Appellants argue that "As noted above, Chen does not disclose laser welding of a wood golf club head structure, nor does Chen disclose press forming of a laser welded structure, which provides structural differences over a conventionally welded structure".

Examiner respectfully disagrees. Chen discloses the metal club parts can be press forming and welded together (Col. 2, lines 32-47 and Col. 1, lines 40-46). Note, the recitation with respect to "laser welding, press forming, plastic working, and formed by applying post-machining" is directed to the method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113.

(3) Appellants argue that "Ciasullo does not disclose at least the feature of the metal pieces appear on an outside surface of the crown member and are fixed together by laser welding and press forming is performed on the plurality of metal pieces that are fixed together to form a curved surface portion of the crown member, as claimed." Examiner respectfully disagrees. As described above, Ciasullo discloses a wood-type golf club head having a hollow head body comprising: a shaft (not shown but inherent feature of a golf club); a crown member 30 including a plurality of metal pieces (18, 22) are welded together to form a curved portion of the crown member (Col. 5, lines 15-24). The recitation with respect to "laser welding, press forming, forged, and rolled " is directed to the method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113.

(4) Appellants argue on page 32 that "Kosugi does not disclose a striking face member made from a plurality of metal pieces fixed together by laser welding" and on page 33 that "Shaw's teaching is limited to iron-type golf clubs." Examiner respectfully disagrees. Kosugi discloses a striking face member (21), wherein the face member (21) is press forming, forging, and plastic working (Col. 3, lines 25-30) from a rolled material to form a smooth, curved surface portion (Fig. 2) of the striking face member (21) and

the body parts (21,22,23) are welded to form an integral unit (Col. 2, lines 60-64).

Kosugi et al. fails to disclose the striking face member is made of a plurality of metal pieces are fixed together by laser welding. Shaw teaches a metal face plate (Col. 2, lines 13-20) can be made of one or more component(s) (Col. 1, lines 42-58 and Figs. 23-26), which are welded together (Col. 4, lines 23-29). Such multi-piece face component(s) provide a golf club with different properties such as weight distribution, friction, spin rates, flexural modulus, resilience, and hardness, and aesthetic appearance (Col. 2, lines 13-17, Col. 2, lines 39-43), Col. 3, lines 35-45). Thus, it would have been obvious in view of Shaw to one having ordinary skill in the art to modify the striking face member of Kosugi with a face member with a plurality of pieces as taught by Shaw to gain the above benefits. The recitation with respect to "laser welding, press forming, and plastic working" is directed to the method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113. It is submitted that Appellants acknowledge on page 32 of the appeal brief that laser welding and press forming/plastic working of multiple piece surfaces, such as the striking face is a "process limitations". Note, process limitations do not impart structural limitation to an apparatus claim.

(5) On page 34 of the appeal brief, Appellants attempt to draw the comparison and/difference between the golf club head of Kosugi versus Shaw's golf club head. It is submitted that Kosugi discloses all features of the claimed invention. Examiner only relied on the striking face feature of Shaw to show the importance of providing a multi-piece face component(s). Such multi-piece face component(s) provide a golf club with different properties such as weight distribution, friction, spin rates, flexural modulus, resilience, and hardness, and aesthetic appearance (Col. 2, lines 13-17, Col. 2, lines 39-43), Col. 3, lines 35-45).

(6) Appellants argue on page 37 that "Peterson fails to suggest at least the feature of the metal pieces being fixed together by laser welding and the press forming performed on the plurality of metal pieces that are fixed together to form a curved surface portion of the side wall member, as claimed. As with the rejections based on Chen, the Examiner does not give proper weight to the product-by- process limitations." Examiner respectfully disagrees. Peterson discloses a curved side wall member including a plurality of casting pieces (wall 30 and cap 36) and the pieces 30 and 36 can be fused or welded (Col. 6, lines 20-34) to form a curved surface portion of the side wall member (Fig.). The recitation with respect to "laser welding, press forming, and forged or rolled" is directed to the method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698,

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227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113.

(7) Appellants argue on page 40 that "the structure defined by claim 30, which requires laser welding of the plurality of pieces of the sole member, followed by press forming, is structurally distinct from the separately formed pieces of Galy which are attached **after being formed**." Examiner respectfully disagrees. Galy discloses a wood-type golf club head having a hollow head body (Fig. 4) comprising: a shaft (inherent feature of golf club); a sole member (11) including a plurality of pieces (sole plate 11 and arc shape portion 32), which are welded together to form a curved surface portion of the sole member (Col. 4, lines 55-61). The recitation with respect to "laser welding, press forming, and forged or rolled" is directed to the method of production, which does not impart structural limitation to the claimed apparatus. Note, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even through the prior product was made by a different process. See *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) and *In re Fessmann*, 489 F.2d 742, 744, 180 USPQ 324 (CCPA 1974). See MPEP 2113.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,

Tom Duong



Conferees:

Glenn Calderola



/Kathryn Gorgos/

Kathryn Gorgos